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There are many thousands of ships of all kinds sailing the seas of the world. Those described and illustrated in this book are typical of their kind and belong to shipping lines which have been established for a great many years.

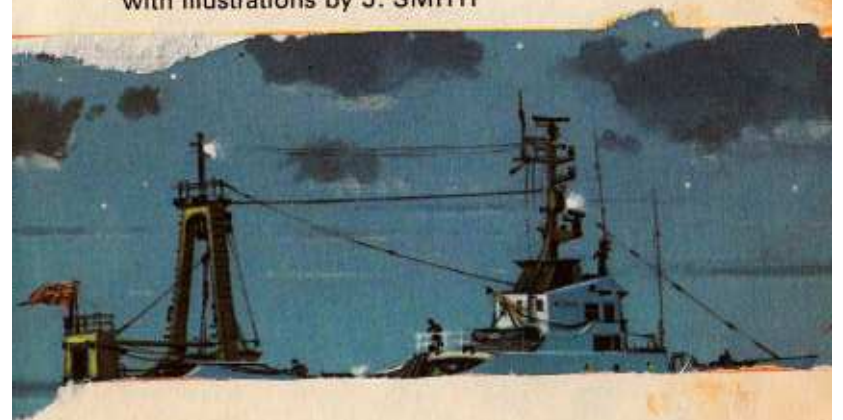
When you have the opportunity of visiting a port, see how many of these shipping lines and their vessels you can spot. You will find it a fascinating occupation.



Series 584

MERCHANT SHIPS

by DAVID CAREY
with illustrations by J. SMITH



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Tradesman

One of Britain's little ships, the Tradesman is an ocean-going tug. It can be used anywhere in the world but is mainly employed on the Humber, in home waters and on towing assignments to the Mediterranean. The engines are remotely controlled from the wheelhouse and flying bridge, and the tug can be operated without anyone in the engine room.

Owners: United Towing Company Ltd. (British). *Overall length:* 105 feet (32m). *Maximum breadth:* 28 feet (8.5m). *Gross tonnage:* 230 tons. *Service speed:* 13 knots. *Propulsion:* Diesel—2 screws. *Towing range:* Over 2,000 miles. *Crew:* 12. *Built:* 1964.

Boston Beverley

The Boston Beverley is a stern trawler of very modern design, built to enable

Diesel—1 screw. *Capacity:* 235 tons of fish and ice in boxes. *Crew:* 23. *Built:* 1971.



Lloydsman

Here is another tug, one of the most up-to-date in the world and designed for world-wide operation. The Lloydsman is capable of towing a fully-loaded 300,000-ton super-tanker at a speed of seven knots. She is also equipped for fire-fighting duties and salvage work at sea. The low stern is deceptive—there is another twenty-three feet (7m) of hull below the water.

Owners: United Towing Company Ltd. (British). *Overall length:* 262 feet (79.8m). *Maximum breadth:* 46 feet 6 inches (14.2m). *Gross tonnage:* 2,041 tons. *Service speed:* 19 knots. *Propulsion:* Diesel—1 screw. *Towing range between refuels:* 33,000 miles. *Crew:* 25. *Built:* 1971.

Holyhead Ferry 1

Operating across the Irish Sea between Holyhead and Dun Laoghaire, this ship was the first roll-on/roll-off car ferry to Eire. Previous ferries required cranes to load and unload the vehicles. She is a one-class vessel with one-, two- or three-berth cabins to sleep eighty passengers. The remaining passengers are accommodated in the various public rooms. A bow rudder and side thrust unit assist manoeuvring in harbour.

Owners: British Rail—Sealink. *Overall length:* 369 feet (112.4m). *Maximum breadth:* 57 feet (17.4m). *Gross tonnage:* 3,878 tons. *Service speed:* 19½ knots. *Propulsion:* Steam turbine—2 screws. *Car capacity:* 153. *Passengers:* 1,000. *Crew:* 75. *Built:* 1965.



Vortigern

This is an all-purpose cross-channel ferry. She carries passengers and cars between Dover and Boulogne during the summer, transferring to the Dunkerque service each autumn to take up duties as a train ferry and commercial road-vehicle carrier. This is a one-class ship with a full range of public rooms, including two bars, self-service restaurant and tea bar.

Owners: British Rail—Sealink. *Overall length:* 380 feet (115.8m). *Maximum breadth:* 63 feet (19.2m). *Gross tonnage:* 4,371 tons. *Service speed:* 19½ knots (car ferry), 15½ knots (train ferry). *Propulsion:* Diesel—2 screws. *Capacity:* 240 cars, or 24 rail wagons, or 10 sleeping cars and 11 rail wagons, or forty 30-foot lorries. *Passengers:* 1,000. *Crew:* 63. *Built:* 1969.

Lady Parkes

Much larger than the Boston Beverley described earlier, this stern trawler has facilities for freezing the fish at sea and keeping it frozen in a refrigerated store. There is also equipment for heading, filleting and skimming part of the catch which can then be frozen and packed into cartons. Moveable stabilisers are fitted to the hull so that the fish can be caught and processed even in very rough weather.

Owners: Boston Deep Sea Fisheries (British). *Overall length:* 240 feet (73.1m). *Maximum breadth:* 41 feet (12.5m). *Gross tonnage:* 1,746 tons. *Service speed:* 13 knots. *Propulsion:* Diesel—1 screw. *Capacity:* 500 tons of frozen fish. *Crew:* 33. *Built:* 1966.



Booker Vanguard

This is claimed to be the first British cargo vessel to be fitted with twin hatch-covers to each cargo compartment, thus making loading and unloading easier. The Booker Vanguard operates between Liverpool or Glasgow and Caribbean ports at St. Kitts, Antigua, Surinam and Guyana. She carries almost any type of cargo, including cars, tobacco, spirits, beer, cereals, timber, sugar, machinery, steel and rum.

Owners: Booker Line Ltd. (British). *Overall length:* 403 feet (122.9m). *Maximum breadth:* 57 feet (17.4m). *Gross tonnage:* 5,417 tons. *Service speed:* 15½ knots. *Propulsion:* Diesel—1 screw. *Deadweight tonnage:* 6,833 tons. *Crew:* 32. *Built:* 1963.



Oti

A cargo vessel on the Liverpool to West Africa route, the Oti was the first ship in the world to use the port of Tema in Ghana when it was opened. She carries a mixed cargo of foodstuffs, machinery, building materials, etc. on the outward voyage, returning with such commodities as oil-seeds, groundnut oils, palm oil, hides and fruit.

Owners: Elder Dempster Lines Ltd. (British). *Overall length:* 450 feet (137.2m). *Maximum breadth:* 62 feet (18.9m). *Gross tonnage:* 5,485 tons. *Service speed:* 12½ knots. *Propulsion:* Diesel—1 screw. *Crew:* 42. *Built:* 1956.



Motagua

This cargo ship was built to carry refrigerated commodities, mainly fruit. The temperature of the cargo hold can be reduced to -10°F . Her normal routes cover northern European ports, the West Indies, Central America, U.S.A. and Japan. The Motagua is one of four identical 'M' class sister ships; the other three are the Morant, Matina and Musa.

Owners: Fyffes Group (British). *Overall length:* 474 feet (144.5m). *Maximum breadth:* 67 feet (20.4m). *Gross tonnage:* 6,348 tons. *Service speed:* $20\frac{1}{2}$ knots. *Propulsion:* Diesel—1 screw. *Passengers:* 6. *Crew:* 37. *Built:* 1970.



Spero

Cars, containers and passengers are carried in the Spero which makes an overnight voyage between Hull and Zeebrugge three times a week. The trip takes fifteen hours and berths are provided so that passengers can sleep comfortably on board. Passengers can also make the double journey and so have a two- or three-day mini-cruise. Special sightseeing arrangements are made for the period the ship is in port.

Owners: Ellerman's Wilson Line (British). *Overall length:* 454 feet (138.4m). *Maximum breadth:* 70 feet (21.3m). *Gross tonnage:* 6,916 tons. *Service speed:* 18 knots. *Propulsion:* Diesel—2 screws. *Passengers:* 408. *Cars and caravans:* 200. *Crew:* 70. *Built:* 1966.



Motagua

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Owners: Fyffes Group (British). *Overall length:* 474 feet (144.5m). *Maximum breadth:* 67 feet (20.4m). *Gross tonnage:* 6,348 tons. *Service speed:* $20\frac{1}{2}$ knots. *Propulsion:* Diesel—1 screw. *Passengers:* 6. *Crew:* 37. *Built:* 1970.



Spero

Because she sails between Singapore and Fremantle in Western Australia, the Centaur will not normally be seen in British ports. She has excellent facilities for her 190 passengers and can also carry 4,500 sheep and 40 dairy cows, or 700 cattle as well as general and refrigerated cargoes. Her sixteen-day round trip is ideal for tourists.

Owners: Blue Funnel Line (British). *Overall length:* 480 feet (146.3m). *Maximum breadth:* 66 feet (20.1m). *Gross tonnage:* 8,000 tons. *Service speed:* 20 knots. *Propulsion:* Diesel—2 screws. *Passengers:* 190. *Crew:* 106. *Built:* 1963.



England

Excellently equipped with a smoking room, promenade/sun deck and observation lounge, the England sails between Harwich and Esbjerg across the North Sea. She has accommodation for 463 passengers in three classes, and 100 cars which are loaded by linked ramps that can be adjusted to suit all tidal conditions. She takes nineteen hours for a one-way crossing and is used for business and holiday traffic.

Owners: The United Steamship Company Ltd. (Danish). *Overall length:* 459 feet (139.9m). *Maximum breadth:* 62 feet (18.9m). *Gross tonnage:* 8,221 tons. *Service speed:* 23 knots. *Propulsion:* Diesel—1 screw. *Crew:* 115. *Built:* 1964.



Historian

The Historian is one of about thirty ships of the Harrison Line. They operate cargo services from a variety of United Kingdom ports to the Red Sea and East Africa, South America, South Africa, West Indies, the Guyanas and U.S. Gulf ports. She carries general cargoes and has a derrick which will handle loads of up to 150 tons at a time.

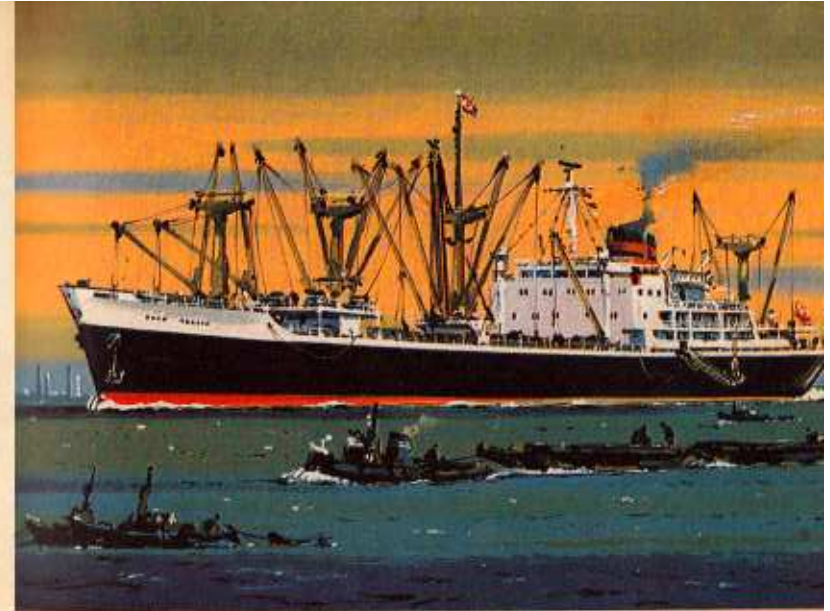
Owners: Thos. & Jas. Harrison Ltd. (British). *Overall length:* 494 feet (150.6m). *Maximum breadth:* 63 feet 2 inches (19.2m). *Gross tonnage:* 8,454 tons. *Service speed:* 18½ knots. *Propulsion:* Diesel—1 screw. *Crew:* 45. *Built:* 1968.



Clan Alpine

Routes served by ships of the Clan Line are to South West Africa, South Africa, Mauritius, East Africa, Red Sea ports, India, Pakistan and Ceylon. The Clan Alpine may serve on any of these routes carrying any kind of non-refrigerated cargo. One of the cargo derricks with which the ship is equipped has a lifting capacity of sixty tons.

Owners: Clan Line (British). *Overall length:* 507 feet 10 inches (154.8m). *Maximum breadth:* 63 feet (19.2m). *Gross tonnage:* 8,713 tons. *Service speed:* 16 $\frac{3}{4}$ knots. *Propulsion:* Diesel—1 screw. *Crew:* 66. *Built:* 1967.



Manchester Commerce

Built and equipped for the Manchester, North America and Great Lakes trade, this cargo ship is fitted with closed-circuit television to give a clear picture of the scene in front of the bows. This is an important aid for navigating the crowded waters of the St. Lawrence Seaway. The main engines can be operated by remote control from the bridge.

Owners: Manchester Liners Ltd. (British). *Overall length:* 502 feet (153m). *Maximum breadth:* 62 feet (18.9m). *Gross tonnage:* 8,724 tons. *Service speed:* 17 knots. *Propulsion:* Diesel—1 screw. *Passengers:* 2. *Crew:* 40. *Built:* 1963.



City of London

Here is a very modern ship of medium size which carries a variety of cargoes between ports in the United Kingdom and South Africa. She is fitted with twin hatches and has a fully-automated bridge from which the main engine can be controlled. Bridge, crew accommodation and machinery are placed near the stern in the normal manner for modern cargo liners.

Owners: Ellerman and Bucknall (British). *Overall length:* 503 feet (153.3m). *Maximum breadth:* 73 feet (22.2m). *Gross tonnage:* 9,763 tons. *Service speed:* 18½ knots. *Propulsion:* Steam turbine—1 screw. *Crew:* 58. *Built:* 1971.



Yamashiro

The unusually-shaped hull of this cargo liner is said to guarantee a speed of 20 knots with a single diesel engine developing only 13,000 brake horse-power. About 17,000 brake horse-power would be required for a similar ship with normal hull design. This means that she is very economical to operate. Her normal route is between Japan and Europe and she carries a variety of cargoes.

Owners: Nippon Yusen Kaisha—N.Y.K. (Japanese). *Overall length:* 492 feet (150m). *Maximum breadth:* 75 feet 6 inches (23m). *Gross tonnage:* 10,030 tons. *Service speed:* 20 knots. *Propulsion:* Diesel—1 screw. *Passengers:* 6. *Crew:* 40. *Built:* 1963.



Wiltshire

The Wiltshire is a ship built for the transport of liquefied gas. Propane, butane and anhydrous ammonia in liquid state are held in insulated tanks at a temperature of -50°C . Like all tanker-type vessels, the Wiltshire's machinery and crew accommodation are placed aft, as far away as possible from the cargo tanks. The ship trades along world-wide routes.

Owners: Bibby Brothers and Company (British). *Overall length:* 498 feet (151.8m). *Maximum breadth:* 70 feet (21.3m). *Gross tonnage:* 10,036 tons. *Service speed:* $16\frac{1}{2}$ knots. *Propulsion:* Diesel—1 screw. *Crew:* 34. *Built:* 1971.



Pacific Logger

As the name might suggest, the Pacific Logger has been designed and built to carry timber. She is not a visitor to British ports but operates the route between Vancouver and Japan. She carries three 16-ton cranes for loading and unloading the cargo and these can be seen clearly in the illustration opposite. It can also be seen that accommodation and machinery are placed well aft.

Owners: Canadian Pacific Steamships (British). *Overall length:* 487 feet (148.4m). *Maximum breadth:* 69 feet 7 inches (21.2m). *Gross tonnage:* 10,324 tons. *Service speed:* $14\frac{3}{4}$ knots. *Propulsion:* Diesel—1 screw. *Crew:* 36. *Built:* 1969.



Maplebank

This is one of fifty-one general cargo liners operated by the Bank Line. Their services cover many parts of the world and range from the United Kingdom and the Continent to the Bay of Bengal, South and North America, Africa, Australia, New Zealand, New Guinea and several other areas. Cargoes include jute, tea, manufactured articles, raw materials and fertilisers.

Owners: Bank Line (British). *Overall length:* 513 feet (156.3m). *Maximum breadth:* 68 feet (20.7m). *Gross tonnage:* 10,365 tons. *Service speed:* 15 knots. *Propulsion:* Diesel—1 screw. *Crew:* 60. *Built:* 1967.



American Challenger

Challenger is the name of this ship and also the class of freight ships which were built to provide a weekly service between Britain and France and American ports. She made her maiden voyage on 1st September, 1962, and broke the speed record for cargo ships on the North Atlantic route. Her average crossing speed was 24.42 knots.

Owners: United States Lines (American). *Overall length:* 560 feet 6 inches (170.8m). *Maximum breadth:* 75 feet (22.9m). *Gross tonnage:* 11,105 tons. *Service speed:* 20 knots. *Propulsion:* Steam turbine—1 screw. *Built:* 1962.



Adelaide Star

This is one of a great many ships of its type capable of carrying mixed general cargoes or refrigerated commodities. Her route is from United Kingdom and Continental ports to South Africa, Australia and New Zealand. Her lay-out is conventional, with engines amidships and holds fore and aft. She has accommodation for twelve passengers.

Owners: Blue Star Line (British). *Overall length:* 573 feet (174.6m). *Maximum breadth:* 72 feet (21.9m). *Gross tonnage:* 12,964 tons. *Service speed:* 17½ knots. *Propulsion:* Diesel—2 screws. *Deadweight tonnage:* 14,078 tons. *Crew:* 60. *No. of passengers:* 12. *Built:* 1950.



Majestic

The Majestic is one of the company's fleet of nearly thirty ships. She also sails between United Kingdom and European ports and New Zealand. On the outward voyage she carries cars, agricultural machinery and general manufactured goods, while on the homeward run she is loaded with refrigerated items such as lamb, beef, butter, cheese and quick-frozen vegetables, together with wool, milk powder and skins.

Owners: Shaw Savill Line (British). *Overall length:* 546 feet (166.4m). *Maximum breadth:* 74 feet 4 inches (22.6m). *Gross tonnage:* 12,277 tons. *Service speed:* 18½ knots. *Propulsion:* Diesel—1 screw. *Crew:* 39. *Built:* 1967.



Blenheim

A dual-purpose ship, the Blenheim combines the duties of cruise passenger/fruit cargo transport. She sails between London and the Canary Islands during the winter and operates a high-speed ferry service for passengers and cars across the North Sea in the summer. She is excellently equipped and fitted with stabilisers and bow thrust unit.

Owners: Fred Olsen Lines Ltd. (Norwegian). *Overall length:* 489 feet 2 inches (149m). *Maximum breadth:* 65 feet 7 inches (19.9m). *Gross tonnage:* 13,800 tons. *Service speed:* 23 knots. *Propulsion:* Diesel—2 screws. *Cars:* 300. *Passengers:* Winter 400; summer 990. *Maximum crew:* 130. *Built:* 1970.



Aureol

The motor vessel Aureol is one of the smaller passenger liners. She operates on the route from Liverpool to West Africa, calling at ports such as Las Palmas, Bathurst, Freetown, Monrovia, Tema and Lagos. She has accommodation for 253 first class, 100 cabin class passengers, and 102 African deck passengers travelling on short passages between West African ports.

Owners: Elder Dempster Lines Ltd. (British). *Overall length:* 537 feet (163.6m). *Maximum breadth:* 70 feet (21.3m). *Gross tonnage:* 14,083 tons. *Service speed:* 15½ knots. *Propulsion:* Diesel—2 screws. *Normal passengers:* 393. *Crew:* 209. *Built:* 1951.



Atlantic Causeway

This is one of a fairly new breed of freighter—a container-ship. She is operated by the Atlantic Container Line, a container consortium which includes among its members the French Line, Cunard, Holland America Line, Swedish America Line and others. In addition to containers, this ship also has roll-on/roll-off facilities for motor cars and trailers. She is equipped with very modern navigational systems and sails between Liverpool, Halifax (Nova Scotia) and New York.

Owners: Cunard Steam-Ship Company Ltd. (British). *Overall length:* 695 feet (211.8m). *Maximum breadth:* 92 feet (28m). *Gross tonnage:* 14,946 tons. *Service speed:* 23 knots. *Propulsion:* Steam turbine—2 screws. *Built:* 1969.

British Unity

Although owned by a British company, this tanker was built in Yugoslavia. By normal tanker standards she is quite small but is used to carry refined petroleum products and not crude, unrefined oil in bulk. Her trading routes are to and from the Persian Gulf, Australia, South Africa and Europe. She is able to carry several grades of oil at the same time.

Owners: B.P. Tanker Company Ltd. (British). *Overall length:* 558 feet 9 inches (170.3m). *Maximum breadth:* 81 feet 4 inches (24.8m). *Gross tonnage:* 15,266 tons. *Service speed:* 14 knots. *Propulsion:* Diesel—1 screw. *Crew:* 38. *Built:* 1969.



Port Caroline

Sailing between the United Kingdom, Australia and New Zealand, the Port Caroline carries both general and refrigerated cargoes. She is claimed to be the largest refrigerated cargo ship in the world. All hatch covers are remotely controlled and electrically operated, and there are six fully-automated cargo derricks, four traversing five-ton cranes and a twenty-ton crane.

Owners: Cunard Cargo Shipping Ltd. (British). *Overall length:* 612 feet 2 inches (186.6m). *Maximum breadth:* 81 feet 5 inches (24.8m). *Gross tonnage:* 16,283 tons. *Service speed:* 20½ knots. *Propulsion:* Diesel—2 screws. *Passengers:* 12. *Crew:* 52. *Built:* 1968.



Axel Johnson

The Axel Johnson is another of the containerships in which the bulk of the cargo is carried in crate-like containers. She has four special cranes for loading and unloading the containers which are stacked on deck as well as in the holds. The vessel was built specifically for the route between Northern Europe, United Kingdom and the west coast of North America.

Owners: Johnson Line (Swedish). *Overall length:* 571 feet 7 inches (174.2m). *Maximum breadth:* 84 feet 6 inches (25.7m). *Gross tonnage:* 16,284 tons. *Service speed:* 23 knots. *Propulsion:* Diesel—2 screws. *Crew:* 32-35. *Built:* 1969.



Alster Express

The Alster Express is a further example of container transportation and she is able to carry 786 containers of 28-foot (8.5m) length.

She sails the North Atlantic route between the Continent, the British east coast port of Felixstowe, New York, Philadelphia, Baltimore and Norfolk (U.S.A.). She has a list-equalling (or balancing) system which within seconds allows for any extra weight, or loss of weight, caused by a container being loaded or off-loaded.

Owners: Hamburg Amerika Line (German). *Overall length:* 560.75 feet (170.9m). *Maximum breadth:* 80.84 feet (24.7m). *Gross tonnage:* 14,071 tons. *Service speed:* 19 knots. *Propulsion:* Diesel—1 screw. *Crew:* 33. *Built:* 1969.

President Wilson

This is not a ship you are likely to see in a British port because her normal service routes lie across the Pacific Ocean between San Francisco, Los Angeles, Honolulu, Yokohama, Nagasaki, Kobe, Hong Kong and Manila. She is fully air-conditioned, and fitted with stabilisers. Together with her identical sister ship, President Cleveland, she is used also for cruising, including round-the-world voyages from San Francisco which last for about three months.

Owners: American President Lines (American). *Overall length:* 610 feet (186m). *Maximum breadth:* 76 feet (23.2m). *Gross tonnage:* 18,962 tons. *Service speed:* 20 knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 684. *Built:* 1948.



American Astronaut

The containership American Astronaut is equipped to take 20-foot (6m) and 40-foot (12.2m) length containers, and all the spaces on deck are constructed in such a way that units of either size can be carried. Electric points are installed on deck so that containers can be plugged in to refrigerating machinery. Normal service routes are from the east and west coasts of the U.S.A. to the Far East.

Owners: United States Lines (American). *Overall length:* 700 feet 6 inches (213.5m). *Maximum breadth:* 90 feet (27.4m). *Gross tonnage:* 18,917 tons. *Service speed:* 24/25 knots. *Propulsion:* Steam turbine—1 screw. *Crew:* 42. *Built:* 1969.



Reina del Mar

At one time in the service of the Pacific Steam Navigation Co. on the route between the United Kingdom and the west coast of South America, the Reina del Mar is now chartered by the Union Castle Line. In 1964 she underwent a major refit and was then converted for full-time cruising. She is air-conditioned, stabilised and provides good facilities for just under a thousand passengers.

Owners: Royal Mail Line (British). *Overall length:* 600 feet (182.9m). *Maximum breadth:* 78 feet (23.8m). *Gross tonnage:* 20,747 tons. *Service speed:* 18 knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 986. *Crew:* 400 approx. *Built:* 1956.



Hamburg

The newer of only two ships owned by the German Atlantic Line, the Hamburg is a spacious and luxurious passenger liner, fully air-conditioned and stabilised. With her sister ship the Hanseatic, she operates a line service from the Continent and U.K. to the U.S.A. and may be seen at Southampton from time to time. She also has an extensive cruise programme from Port Everglades (Florida), Cuxhaven (Germany) and Genoa (Italy).

Owners: German Atlantic Line (German). *Overall length:* 644 feet (196.3m). *Maximum breadth:* 90 feet (27.4m). *Gross tonnage:* 23,500 tons. *Service speed:* 23 knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 600. *Crew:* 400. *Built:* 1969.

Northern Star

The Northern Star is the second largest vessel in the Shaw Savill fleet. Her engines are placed aft, which leaves uninterrupted space available for her considerable tourist class passenger accommodation. She maintains a round-the-world service, starting at Southampton and sailing to South Africa, Australia and New Zealand, then homeward via a variety of Pacific and Caribbean ports.

Owners: Shaw Savill Line (British). *Overall length:* 650 feet (198.1m). *Maximum breadth:* 82 feet (25m). *Gross tonnage:* 23,983 tons. *Service speed:* 23 knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 1,489. *Crew:* 476. *Built:* 1962.



Kungsholm

Air-conditioning, indoor and outdoor swimming pools, gymnasium, massage rooms, a beauty parlour and a boutique are a few of the many amenities of the Kungsholm, another modern and luxurious passenger liner. Like so many of her kind, she operates a transatlantic service for part of the year and world-wide cruises for the remainder of the time. Transatlantic voyages are between Gothenburg or Copenhagen and New York.

Owners: Swedish American Line (Swedish). *Overall length:* 660 feet (201.1m). *Maximum breadth:* 87 feet (26.5m). *Gross tonnage:* 26,680 tons. *Service speed:* 21 knots. *Propulsion:* Diesel—2 screws. *Passengers:* 500-758. *Crew:* 350. *Built:* 1966.

Regina Magna (ex Bremen)

In 1959 the North German Lloyd Company bought the old French ship Pasteur, stripped her of all equipment, and after a complete rebuilding lasting eighteen months, put her into service on the North Atlantic route from Bremerhaven to New York. Completely modernised in every detail, the ship was re-named Bremen by her new owners and was made flagship of the Line. In October, 1971, she was bought by the Chandris Line of Greece which operates her, together with many other well-known ships, as a cruise liner. Ports of call are very varied, and include departures from Tilbury.

Owners: Chandris Line (Greek). *Overall length:* 697 feet (212.4m). *Maximum breadth:* 90 feet (27.4m). *Gross tonnage:* 32,360 tons. *Service speed:* 23 knots. *Propulsion:* Steam turbines—4 screws. *Passengers:* 1,122. *Crew:* 544. *Built:* (Pasteur) 1938. Rebuilt (Bremen) 1959. Acquired (re-named Regina Magna) 1971.



Windsor Castle

Easily the largest ship in the Union Castle passenger fleet, the Windsor Castle is fully air-conditioned, fitted with stabilisers and among her amenities includes a health spa, two swimming pools and a cinema seating 239 people. She operates a South African mail service from Southampton to Cape Town, Port Elizabeth, East London and Durban. She has 639,494 cubic feet (18,103.6 cubic metres) of cargo space and a garage for carrying cars.

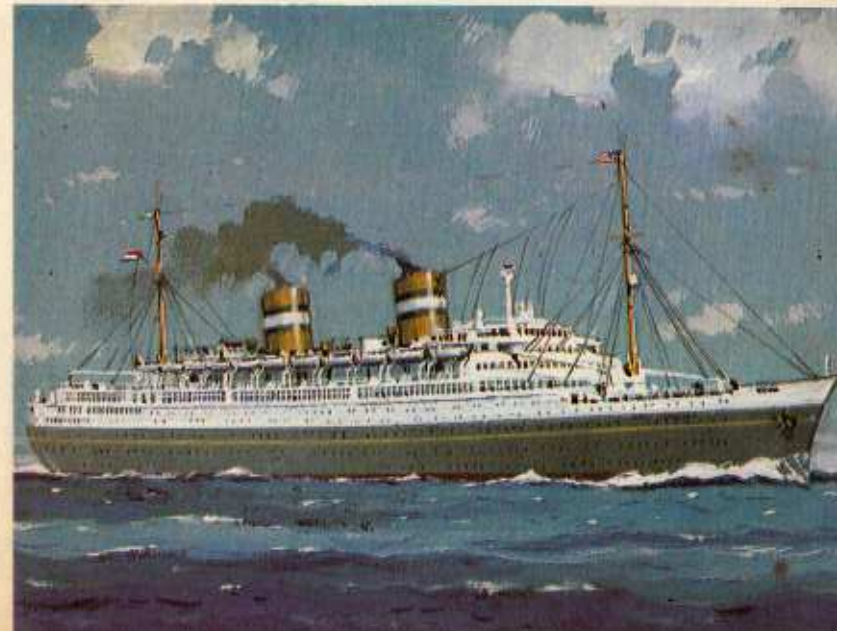
Owners: Union Castle Line (British). *Overall length:* 783 feet 5 inches (238.8m). *Maximum breadth:* 92 feet (28m). *Gross tonnage:* 36,123 tons. *Service speed:* 22½ knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 827 in first and tourist classes. *Crew:* 476. *Built:* 1960.



Nieuw Amsterdam

Although originally completed in 1938 and easily the oldest ship of the Line, the Nieuw Amsterdam was completely reconditioned as a cabin and tourist class passenger ship in 1961. She is used mainly as a cruise ship, operating from Port Everglades in Florida to South America and the West Indies. During the second world war she was armed with thirty-six guns and steamed over 530,000 miles as a troop ship.

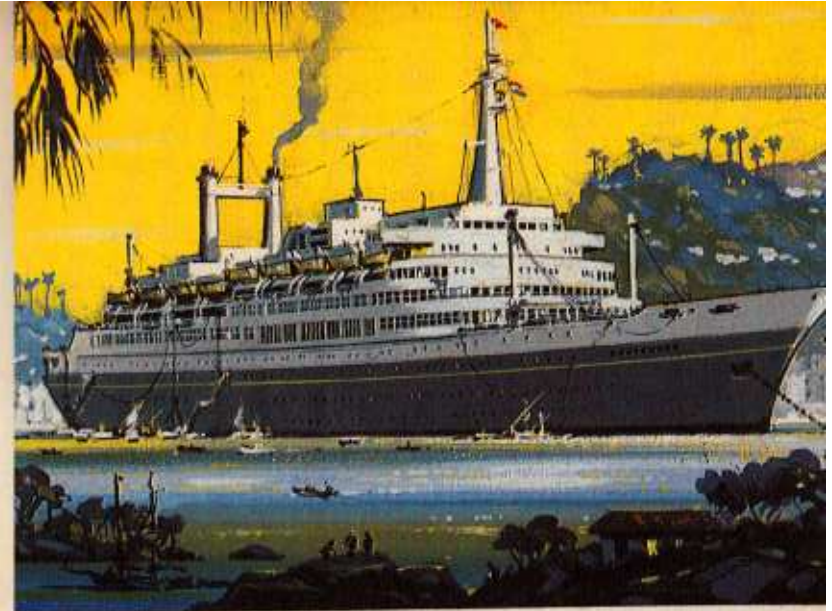
Owners: Holland-America Line (Dutch). *Overall length:* 758 feet (231m). *Maximum breadth:* 88 feet (26.8m). *Gross tonnage:* 36,982 tons. *Service speed:* 21½ knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 1,274. *Built:* 1938.



Rotterdam

The Rotterdam is the fifth ship of the same name and the present flagship of the company. She is the largest ship ever built in the Netherlands and is unusual in appearance because she lacks the normal funnel. She provides a high standard of passenger comfort in first and tourist classes. Machinery is placed aft, giving maximum space for passengers' facilities. The Rotterdam operates from New York on world and Caribbean cruises.

Owners: Holland-America Line (Dutch). *Overall length:* 748 feet (228m). *Maximum breadth:* 94 feet (28.6m). *Gross tonnage:* 38,621 tons. *Service speed:* 22 knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 1,389. *Built:* 1959.



Oriana

The second largest passenger liner in the P. & O. fleet, the Royal Mail Ship Oriana is modern in every way, fully air-conditioned and stabilised. She sails mainly between the U.K. and Australia on voyages that often take her round the world via the Cape of Good Hope and the Panama canal. Other routes take her to the Far East and Japan.

Owners: P. & O. (British). *Overall length:* 804 feet (245m). *Maximum breadth:* 100 feet (30.4m). *Gross tonnage:* 41,910 tons. *Service speed:* 27½ knots. *Propulsion:* Steam turbine—2 screws. *Passengers:* 2,008-2,774. *Crew:* 835. *Built:* 1960.



Canberra

A ship of interesting and modern design is the Canberra. She is also very quiet as the engines are fitted aft so that noise and vibration are removed from the central living space. She is fitted with stabilisers and is air-conditioned throughout. The Royal Mail Ship Canberra normally sails the Atlantic, Pacific and Indian oceans, operating between Southampton and Sydney, Australia, via the Cape of Good Hope or the Panama canal. Short holiday cruises are also made.

Owners: P. & O. (British). *Overall length:* 819 feet (249.6m). *Maximum breadth:* 102 feet (31m). *Gross tonnage:* 44,807 tons. *Service speed:* 26½ knots. *Propulsion:* Steam turbines with electric drive—2 screws. *Passengers:* 2,196-2,246. *Crew:* 851. *Built:* 1961.



Naticina

The Naticina is an oil tanker in what might be called the middleweight class. She is of conventional design for this type of vessel, having all machinery and accommodation placed as near to the stern as possible. The cargo of crude oil is loaded and discharged at terminals all over the world. The Shell Group operate a great number of oil tankers of all sizes.

Owners: Shell Tankers (U.K.) Ltd. (British). *Overall length:* 870 feet (265.2m). *Maximum breadth:* 137 feet 10 inches (42m). *Gross tonnage:* 60,703 tons. *Service speed:* 14½ knots. *Propulsion:* Diesel—1 screw. *Deadweight tonnage:* 115,600 tons. *Crew:* 40. *Built:* 1967.



Queen Elizabeth 2

Built to replace two former Atlantic Queens—Queen Mary and Queen Elizabeth—the QE2 is perhaps the best known of current British ships, and a truly magnificent one. She is fitted with a satellite navigational system, track-computing radar and special safety control arrangements among many other advanced features. Her normal line route is between Southampton and New York but she becomes a super-luxury cruise ship for several months of the year.

Owners: Cunard Line Ltd. (British). *Overall length:* 963 feet (293.5m). *Maximum breadth:* 105 feet (32m). *Gross tonnage:* 65,803 tons. *Service speed:* 28½ knots. *Propulsion:* Steam turbine—2 six-bladed propellers. *Passengers:* 2,025. *Crew:* 906. *Built:* 1968.



France

The France is the flagship of the French Line. She is a fine vessel and has the distinction of being the longest passenger liner in the world as well as one of the fastest. She sails the Atlantic from Le Havre to Southampton and New York, and during the winter months is used for luxury cruises to South America, the Caribbean, Mediterranean and many other areas.

Owners: French Line (French). *Overall length:* 1,035 feet (315.5m). *Maximum breadth:* 110 feet (33.5m). *Gross tonnage:* 66,348 tons. *Service speed:* 30 knots. *Propulsion:* Steam turbine—4 screws. *Passengers:* 2,000. *Crew:* 1,000. *Built:* 1961.



Esso Cambria

One of the heavyweight class of oil tankers, this is a vessel of enormous dimensions and a carrying capacity of 249,952 tons of oil. Tankers of this type were developed mainly after the closing of the Suez Canal when ships had to use the much longer Cape route. The Esso Cambria loads with crude oil in the Persian Gulf and discharges at Milford Haven, Fawley or Rotterdam.

Owners: Esso Petroleum Company Ltd. (British). *Overall length:* 1,141 feet (347.8m). *Maximum breadth:* 170 feet (51.7m). *Gross tonnage:* 127,158 tons. *Service speed:* 16 knots. *Propulsion:* Steam turbine—1 screw. *Crew:* 37. *Built:* 1969.

Texaco Great Britain

Another super-tanker to help satisfy Europe's ever-increasing demand for oil, the Great Britain was so named to commemorate the return to the U.K. of a famous namesake. This was I. K. Brunel's Great Britain, the first iron ship, launched in 1843. The Texaco version takes on crude oil in the Persian Gulf and discharges at Pembroke (South Wales), Europoort (Holland) and Brunsbittel (Germany—the port for Hamburg). She has carrying capacity for 252,000 tons of oil.

Owners: Texaco Overseas Tankships Ltd. (British). *Overall length:* 1,132 feet (346.9m). *Maximum breadth:* 170 feet (51.7m). *Gross tonnage:* 126,500. *Service speed:* 15 knots. *Propulsion:* Steam turbine—1 screw. *Crew:* 42. *Built:* 1971.



Series 584